

A new species of *Gynatrix* (Willd.) Alef. (Malvaceae) from eastern Victoria

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ABSTRACT

Gynatrix macrophylla is described as a new species distinguished from *G. pulchella* by its larger, more densely indumented leaves, and larger flowers and fruit. Its distribution, habitat and conservation status are outlined.

Introduction

In preparing an account of the Malvaceae to be published in Volume 3 of the *Flora of Victoria*, it became apparent that there are 2 distinct species of *Gynatrix* in Victoria. The opportunity is here taken to name a previously undescribed taxon prior to the Flora's publication later this year.

Taxonomy

Gynatrix macrophylla N.G.Walsh sp. nov.

a *Gynatrix pulchella* (Willd.) Alef. foliis majoribus, cordatis magis, pagina abaxiali stellato-tomentosa dense et aequaliter, floribus majoribus (calyce 4.5-6.5 mm longo, petalis 6-10 mm longis in floribus masculis; calyce 3.5-4.5 mm longo, petalis 2-3 mm longis in floribus femineis), fructibus majoribus (mericapiis 5-6 mm longis, seminibus 3-3.5 mm longis) distinguitur.

TYPUS: Victoria, North-east, Howqua River, 5 km south-east from Mt Timbertop, 28 May 1987, N.G.Walsh 1845 (HOLOTYPUS: MEL; ISOTYPI: CANB, PERTH).

Dioecious shrub or small tree to c. 5 m high. *Leaves* ovate to broad-ovate, (4-)6-12(-20) cm long, (2.5-)4-9(-14) cm wide, deeply cordate at base, and often with the basal lobes overlapped; margins crenate or crenate-serrate; grey or whitish beneath, with the lower lamina obscured by a dense, even layer of stellate trichomes; upper lamina green to grey-green, glabrescent or with sparse to dense stellate trichomes persisting. *Male flowers: calyx* cupular, 4.5-6.5 mm long, densely stellate-pubescent, divided to just above midway, lobes broadly acute; *petals* cream, narrowly obovate, 6-10 mm long, minutely stellate-pubescent toward the apex on the abaxial surface; *anthers* minutely stellate-pubescent. *Female flowers: calyx* as for males but smaller, 3.5-4.5 mm long (enlarging to c. 5 mm long in fruit); *petals* cream, shortly united with ovary near base, the free part c. oblong, stellate-pubescent near apex, exceeding calyx by c. 1-2 mm; *style-branches* stellate-pubescent along abaxial surface; ovary densely stellate-pubescent. Mature *mericarps* 5-6 mm long, c. 3 mm wide; *seeds* smooth, dark brown, 3-3.5 mm long, 1.5-2 mm diam., obliquely ovoid with a minutely incurved, uncinat tip, more or less trigonous in section. (Fig. 1)

PHENOLOGY

Flowering specimens have been collected in February, May, October, November and December. The flowers of one male specimen were described as 'chocolate-scented'. Fruiting specimens have been collected in December and February.



HOLOTYPE

Gynatrix macrophylla N.G. Walsh

Determined N.G. Walsh 6 x 1997

Gynatrix sp. *macrophylla*

Determined N.G. Walsh 29. V. 1974

MEL 11112

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MELBOURNE AUSTRALIA

Gynatrix palchella (Willd.) Alef.

Family Malvaceae

Loc VICTORIA - North-east, South bank of Snowy River, 400 m downstream from Sheepyard Flat (cleared area), 5.0 km south-east from Mt Timbertop.

Lat 39°11'50"S long 146°14'40"E (ind)

Coll N.G. Walsh 1845,
28 May 1974.

Det

Notes Flowers cream, chocolate-scented. Male plant and only specimen observed is 7 km between Sheepyard & Frys.

Assoc. sp. of *Ludovicella pubera*, *urticaefolia*, *Acacia melanoxylon*, *Citrus laurifolia*.

Dupl. MEL 11112

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Fig. 1. The holotype of *Gynatrix macrophylla*.

ETYMOLOGY

The epithet (from Greek, meaning large-leaved) refers to the leaves that are typically larger than those of *G. pulchella*, the only other member of the genus.

DISTRIBUTION AND CONSERVATION STATUS

Apparently endemic in Victoria, where known from the catchments of the Howqua, Macalister, Avon, Mitchell, Tambo and Buchan Rivers in the Eastern Highlands, East Gippsland and Snowfields Natural Regions (Conn, 1993). From herbarium labels, populations of *G. macrophylla* are typically quite small (one plant to occasional in community). Although moderately widespread in eastern Victoria with a range exceeding 150 km, it appears to be poorly represented in conservation reserves, and is probably best regarded as rare, with Risk Code 3rci (Briggs & Leigh, 1989).

HABITAT

Apparently confined to riparian sites at altitudes between c. 100 and c. 1000 m, with associated species including *Eucalyptus viminalis*, *E. radiata*, *Acacia dealbata*, *A. melanoxylon*, *Pomaderris aspera*, *Brachychiton populneum*, *Bursaria spinosa* and *Hymenanthera dentata*.

NOTES

Gynatrix macrophylla differs from *G. pulchella* in having larger, relatively broader leaves (those of *G. pulchella* being 4-10(-15) cm long, 1.5-3(-6) cm wide), that are densely and evenly stellate-pubescent beneath and have more pronouncedly cordate bases and less attenuated apices. The flowers are up to twice as large in all features as those of *G. pulchella*, and the mature mericarps and seeds larger (those of *G. pulchella* being c. 3.5 and 2.5 mm long respectively). The seeds of *G. macrophylla* are also relatively more slender and have a small uncinatate process at the apex.

While *G. pulchella* includes forms that vary from having leaves virtually glabrous to distinctly stellate-pubescent, the abaxial indumentum is (from specimens observed to date) neither as dense or as even as that of *G. macrophylla*. Distinctly pubescent forms of *G. pulchella* equate to *Plagianthus pulchellus* Willd. var. *tomentosa* Rodway (type from Tasmania, but extending through the range of the species), but this variety has not been maintained in contemporary works and no combination for it exists in *Gynatrix*.

SPECIMENS EXAMINED

VICTORIA: East Gippsland, Melick Munjie Creek, 15 Dec. 1970, *A.C. Beaglehole 35554* (MEL); Snowfields/Eastern Highlands, Carey River, 11 Nov. 1992, *E.A. Chesterfield 3471* (MEL); Eastern Highlands, Barkly River, 11 Nov. 1992, *E.A. Chesterfield 3473* (MEL); Gippsland, Murrindal River at the Pyramids, 1 Dec. 1990, *D.E. Albrecht 4618* (MEL); Central Gippsland, Freestone Creek, upstream of Culloden, 27 April 1992, *D.E. Albrecht 4966* (MEL); Beside the Wongungurra River, c. 7 km due east from Mt Murray, 19 Feb. 1985, *K.A. Menkhorst s.n.* (MEL, PERTH); Mitchell River, c. 20 miles (32 km) north-west of Bairnsdale, 18 July 1971, *D. Quinton* (MEL); Beside Tambo River, c. 1 km upstream from Collins Road Bridge, 18 km NNE from Bruthen, 12 Oct. 1988, *N.G. Walsh 2157* (BRI, HO, MEL); Buchan River, c. 0.5 km upstream of the township, 26 Jan. 1987, *D.E. Albrecht 3036* (MEL); Collector and locality unknown (MEL).

References

- Briggs, J.D. & Leigh, J.H. (1989) *Rare or Threatened Australian Plants*. Special Publication 14. (Australian National Parks and Wildlife Service, Canberra.)
 Conn, B.J. (1993) *Natural Regions and Vegetation of Victoria*. In D.B. Foreman and N.G. Walsh (eds) *Flora of Victoria*. Vol. 1. (Inkata Press: Melbourne.) pp. 79-158.